DRAFT
Maintenance Concept Remains Consistent with the Prior Fiscal Year

STATEMENT OF WORK FOR THE

INSPECT REPAIR ONLY AS NECESSARY (IROAN)

OF THE
CONVENTIONAL MUZZLE VELOCITY SYSTEM, M94

NSN: 1290-01-412-5760

SOW-03-833-2-09814A-2/1

24 April 2003

TABLE OF CONTENTS

STATEMENT OF WORK FOR THE INSPECT REPAIR ONLY AS NECESSARY (IROAN) OF THE CONVENTIONAL MUZZLE VELOCITY SYSTEM, M94 NSN: 1290-01-412-5760

1.0 SCOPE. This Statement of Work (SOW), the applicable ACALA Depot Maintenance Work Requirement (DMWR) and TM 09814A-14&P establishes, sets forth tasks and identifies the work efforts that shall be performed by the Contractor (for purposes of this SOW, Contractors are defined as the commercial or government entity performing the rebuild) to rebuild the Conventional Muzzle Velocity System, M94, NSN 1290-01-412-5760, (hereafter referred to as the MVS). This document contains requirements to restore the MVS to Condition Code "A". Condition Code "A" is defined as "serviceable/issuable without qualification, new, used, repaired or reconditioned materiel which is serviceable and issuable to all customers without limitation or restriction, including materiel with more than six months shelf-life remaining."

1.1 Background. IROAN is defined as "That maintenance technique which determines the extent of work and parts required to restore equipment, components, or assemblies to prescribed maintenance serviceability standards by utilizing all available diagnostic equipment and test procedures in order to minimize disassembly and parts replacement.

2.0 APPLICABLE DOCUMENTS. The following documents form a part of this SOW to the extent specified. Unless otherwise specified, the issues of these documents are those listed in the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto which is in effect on the date of solicitation. In the event of conflict between the documents referenced herein and the contents of this SOW, the contents of this SOW shall be the superseding requirement.

2.1 Military Standards

MIL-STD-129	DoD Standard Practice for Military Marking
MIL-STD-2073-1D	DoD Standard Practice for Military Packaging

2.2 Other Government Documents And Publications

TM 09814A-14&P	Operator's, Unit Direct Support, and General Support Maintenance Manual, Special Tools list for Coventional Muzzle Velocity System M94 and Communication Adapter
TM-4700-15/1H	Ground Equipment Record Procedures
MI-09814A-34/1	Modification Instruction
ULSS-004692-15	Users Logistics Support Manual

DoD 4000.25-1-M	Military Standard Requisitioning and Issue Procedures (MILSTRIP)

Military Handbook (For Guidance)

MIL-HDBK-61	Configuration Management Guidance

2.3 Industry Standard

ANSI/ISO/ASQC Q9001-2000	Quality Management Systems – Requirements

Industry Standard (For Guidance)

ANSI/EIA-649	National Consensus Standard for Configuration Managemant

Copies of Military Specifications and Standards are available from the DoD Single Stock Point, Document Automation and Production Service, Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, commercial telephone number (215) 697-2179 or DSN 442-2179, or http:/www.dodssp.daps.mil. Copies of other government documents or publications required by the Contractor in connection with specific SOW requirements shall be obtained through the Contracting Officer, Contracts Department (Code 891), P. O. Drawer 43019, 814 Radford Blvd., Marine Corps Logistics Bases, Albany, Georgia 31704-3019, commercial telephone number (229) 639-6761 or DSN 567-6761. Copies of engineering drawings, if applicable, shall be obtained from Supply Chain Management Center, Attn: (Code 583-1), 814 Radford Blvd., Suite 20320, Albany, Georgia 31704-0320, commercial telephone number (229) 639-6476 or DSN 657-6476.

3.0 REQUIREMENTS

3.1 General Tasks. In fulfilling the specified requirements, the Contractor shall:

a. IROAN each MVS in accordance with the guidance listed in MIL-STD-129, TM 09814A-14&P and ANSI/ISO/ASQC Q9001-2000. Upon completion, IROAN MVSs shall be in Condition Code "A," as described in Appendix "A" of this SOW.

b. Provide Materials, labor and facilities necessary to inspect, diagnose, repair, rebuild as necessary and test the MVS.

c. Be responsible for all structural and mechanical requirements associated with the IROAN of the MVS.

3.2 Specific Tasks. The following tasks describe the phases of MVS IROAN.

3.2.1 Phase I - Induction. Induction of the MVS shall require a joint Limited Technical Inspection (LTI) to ensure the completeness of the MVS. A complete MVS for IROAN purposes will consist of the MVS, Installed Items, and Boxed Repairable Items as listed in TM 09814A-14&P under heading "Supply System Responsibility." A copy of the induction LTI for each MVS shall be provided as a means of identification for Supply System Responsibiltiy items, as well as the certification of a complete MVS to Marine Corps Logisitics Bases (Code B877-2) and Marine Corps Systems Command (MCSC), (Code FSS-141), Albany, GA. The Contractor Facility may induct MVSs for IROAN if the missing items do not hinder the IROAN process. Determination of induction with missing items shall rest with the Contractor Facility. The Contractor Facility shall not be responsible for missing items identified during the joint LTI.

3.2.2 Phase II – IROAN. IROAN of MVSs shall be in accordance with TM 09814A-14&P.

a. The Contractor Facility shall ensure the Weapons Record Book is updated and reflects all approved modifications in accordance with TM-4700-15/1H, Ground Equipment Record Procedures. Apply modifications as required in TM-4700-15/1H.

b. It shall be the responsibility of the Contractor Facility to ensure that the entire MVS meets the performance requirements in accordance with TM 09814A-14&P, MI-09814A-34/1 and ULSS-004692-15.

3.2.3 Phase III – Inspection and Testing. Inspection and testing shall be in accordance with MIL-STD-129, MI-09814A-34/1, TM- 4700-15/1H, TM-09814A-14&P, ULSS-004692-15, DoD 4000.25-1-M and ANSI/ISO/ASQC Q9001-2000.

3.2.4 Phase IV- Packaging, Handling, Storage and Transportation (PHS&T)

a. The Contractor shall be responsible for preservation and packaging of item(s) being repaired under the terms of this Statement of Work to include the Basis Issue Items (BII). Items scheduled for long-term storage or shipment to overseas destinations shall be in accordance with level "A" requirements of MIL-STD-2073-1D, Table J.Ia. Specialized Code "DB". Items scheduled for domestic shipment for immediate use or short-term storage shall be in accordance with level "B" requirements.

b. Marking for shipment and storage shall be in accordance with MIL-STD-129.

c. The Marine Corps will provide the Contractor with the shipping address(s) for delivery of the repaired equipment. The Contractor shall be responsible for arranging for shipment to the pre-designated sites. The Marine Corps will be responsible for transportation costs associated with shipping the subject equipment to and from the Contractor.

3.3 Configuration Control. The Contractor shall apply configuration control procedures to established configuration items. The Contractor shall not implement configuration changes to an item's documented performance or design characteristics without prior written authorization.

The baseline configuration has been defined by the written procedures or material contained in manuals, standards, instructions or engineering drawings. If it is necessary to temporarily depart from the authorized configuration, the Contractor shall prepare and submit a Request For Deviation. MIL-HDBK-61 and ANSI/EIA-649 provide guidance for preparing this configuration control document.

3.4 Quality Assurance/ Quality Control. The Contractor shall provide and maintain a Quality System that as a minimum, adheres to the requirements of ANSI/ISO/ASQC 9001-2000, Quality Management Systems-Requirements. Authorized MCSC (Code FSS-141), Albany, Georgia personnel shall be permitted to observe the work/task accomplishment at the Contractor Facility upon prior coordination with MCSC (Code FSS-141), Albany, Georgia and the Contractor Facility.

3.5 Government Furnished Equipment (GFE)/Government Furnished Materiel (GFM). The Management Control Activity (MCA) (Code 571-1) will coordinate Government Furnished Equipment/Government Furnished Materiel (GFE)/(GFM) requests and maintain a central control system on all government owned assets in the contractor's possession. The MCA will forward a GFE Accountability Agreement to the Contractor for signature on an annual basis to establish a chain of custody and identify property responsibilities for Marine Corps assets. The Contractor is to acknowledge receipt of GFM to the MCA within 15 days of receipt. This can be done by mailing a copy of the DD1348 to Materiel Management Department, Management Control Activity (Code 571-1) 814 Radford Blvd., STE 20320, Albany, GA 31704-0320 or faxing a copy to commercial telephone number (229) 639-5498 or DSN 567-5498.

3.6 Contractor Furnished Materiel (CFM). The Contractor shall requisition materiel as required in the performance of the SOW through the DoD Supply System. DoD 4000.25-1-M (MILSTRIP) Chapter 11 provides guidance to Contractors on the requisitioning process. The Contractor's decision to utilize CFM procured from the DoD Supply System shall be based upon cost effectiveness, availability of materiel and the required completion/delivery date.

3.7 Rejection. Failure to comply with any of the specified requirements listed herein shall be reason for rejection by MCSC (Code FSS-141), Albany, Georgia. The Contractor Facility shall, at no additional cost to MCSC (Code FSS-141), Albany, Georgia provide the following:

a. Develop an approach for modification or correction of all deficiencies.

b. Upon approval of a documented approach, the Contractor Facility shall correct the deficiencies and repeat the verification until an acceptable compliance with acceptance test procedures is demonstrated.

4.0 REPORTS. All reports deliverables shall be sent to the following address: Marine Corps Systems Command, (Code FSS-141), 814 Radford Blvd., STE 20343, Albany, GA 31704-0343.

4.1 Monthly Progress Report. The Contractor Facility shall provide Monthly Progress Reports to MCSC (Code FSS-141), Albany, Georgia summarizing the progress and status of the IROAN

program. The report shall be due the tenth working day of each month for the previous month in the format contained in Appendix "B" to this SOW.

4.2 Pre-Shop Analysis And Testing. Upon receipt of MVS for IROAN, a copy of the Pre-shop Analysis Checklist shall be forwarded to MCSC (Code FSS-141), Albany, Georgia in the format contained in Appendix "C".

4.3 Final Assembly And Testing Checklist. Upon delivery of an IROAN MVS, a copy of the Final Assembly and Testing Checklist shall be forwarded to MCSC (Code FSS-141), Albany, Georgia in the format contained in Appendix "D".

STATEMENT OF WORK FOR THE
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NSN: 1290-01-412-5760

APPENDIX A

DEFINITIONS

1. PURPOSE. The definitions contained in this appendix are provided to assure a more complete understanding of the contents of this SOW.

2. DEFINITIONS

a. IROAN. A maintenance technique which determines the minimum repairs necessary to restore equipment, components, or assemblies to prescribed maintenance serviceability standards by utilizing all available diagnostic equipment and test procedures in order to minimize disassembly and parts replacement.

b. REBUILD. The restoration of an item to a standard as nearly as possible to its original condition in appearance, performance, and life expectancy. This process requires restoring an item of supply to serviceable condition by disassembly; inspection of each component part and reassemble, using new or serviceable assemblies, subassemblies, and parts; followed by inspection and operational tests. The terms "rebuild" and "overhaul" are synonymous.

c. CODITION CODE "A". Serviceable/issuable without qualification. New, used, repaired, or reconditioned materail which is serviceable and issuable to all customers without limitation or restriction.

d. CONTRACT DATA REQUIRMENTS LIST (CDRL). The CDRL is a list of data requirements authorized for a specific procurement and the sole contractual document listing the data and information to be delivered under contract.

STATEMENT OF WORK FOR THE
INSPECT REPAIR ONLY AS NECESSARY (IROAN)
OF THE
CONVENTIONAL MUZZLE VELOCITY SYSTEM M94
NSN: 1290-01-412-5760

APPENDIX B

MONTHLY PROGRESS REPORT

USMC Serial Number	*MWSLIN*	*Remarks*

STATEMENT OF WORK FOR THE
INSPECT REPAIR ONLY AS NECESSARY (IROAN)
OF THE
CONVENTIONAL MUZZLE VELOCITY SYSTEM M94
NSN: 1290-01-412-5760

APPENDIX C

PRE-SHOP ANALYSIS CHECKLIST

NOTE: This equipment contains assemblies subject to damage by electrostatic discharge. Use approved grounding procedures before touching, removing or inserting printed wiring assemblies.

Assembly No.: _____

Ser. No.: _____

Reviewed Tags? _____

Reviewed Forms? _____

Inspection Point	Condition	Action	Remarks	Done
M94 MVS System	No visual physical damage	Para. D.3.4		
CPDU	Scratched, gouged, chipped paint	Para. 3.1.9		
	Bent, broken, missing connector contacts	Para's. 3.6.5 and 3.6.6		
	Broken connector body	Para's. 3.5.6 and 3.6.6		
	Unsecured connector mounting	Para. 3.6.6.c.		
	Torn or otherwise damaged keyboard gasket	Para's 3.5.5.2 and 3.6.6		
	Scratched or broken window	Para. 3.16.7		
	Missing, unsecured, not properly aligned swithces and knobs	Para. 3.18.6.k.		
	Broken, unsecured indicator	Para. 3.18.5.d		

	Frayed wires or insulation, burned or shorted conditions	Replace using standard shop procedures		
	Functional fault	Para. 3.2.8		
Inspection	Condition	Action	Remarks	Done
Transceiver Assy	Scratched, gouged, chipped paint	Para. 3.1.9		
	Bent, broken, missing connector mounting	Para's D.9.5.8 and D.9.10.1		
	Broken connector body	Para's. D.9.5.8 and D.9.10.1		
	Unsecured connector mounting	Para. D.9.10.1		
	Painted antenna radome	Para. D.9.6		
	Scrathced antenna radome	Para. D.9.7.d		
	Cut, disturbed, exposed antenna radome	Replace microstrip antenna IAW para's D.9.5 and D.9.10		
	Torn, deteriorated, punctured gasket	Para's. D.9.5.5 and D.9.10.4		
	Frayed wires or insulation, burned or shorted conditions	Replace using standard shop procedures.		
	Funtional fault	Para. D.9.11		
CCAs	Cracked bodies, loose terminals, broken leads, cold solder joints, or otherwise damaged or deteriorated parts	Replace using standard shop procedures.		
	Functional fault	IAW applicable section for the faulty CCA		
EMI Filter Module	Bent, broken, missing connector contacts. Broken connector body. Unsecured connector mounting.	Para. 3.6		
	Funcitonal fault	Para. 3.6.8		

Additional remarks: _____

_____

_____

Inspected by: _____ Date: _____

STATEMENT OF WORK FOR THE
INSPECT REPAIR ONLY AS NECESSARY (IROAN)
OF THE
CONVENTIONAL MUZZLE VELOCITY SYSTEM M94
NSN: 1290-01-412-5760

APPENDIX D

FINAL ASSEMBLY AND TESTING CHECKLIST

TRANSCEIVER ASSEMBLY RF SETION TEST DATA SHEET

CONVENTIONAL TRANSCEIVER _____ SER NO. _____

Para.	Minimum Results	Actual Results	Maximum Results	Pass/ Fail	Remarks
D.9.11.23.c.	40mA		100mA		
D.9.11.2.3.d.	ANT. Cable led is ON				
D.9.11.2.3.e	ACCL.LED is off				
D.9.11.2.3.g	ACCL. LED is ON				
D.9.11.2.3.i.	500mA		900mA		
D.9.11.2.3.k.	8.7Vdc		9.9Vdc		
D.9.11.2.3.m.	2.4Vdc		3Vdc		
D.9.11.2.4e.	10542MHz		10526MIIz		
D.9.11.2.5d.	20.8dBm		23.8dBm		
D.9.11.2.6.d.(1)	Broad Band Noise, No oscillation				
D.9.11.2.6.d.(5)	100mV		300mV		
D.9.11.2.6.d.(7)	100mV		300mV		
500KHz Sensitivity Test					
D.9.11.2.6.e.(2)	13Vp-p				
D.9.11.2.6.e.(3)	13Vp-p				
D.9.11.2.6.e.(7)	RMS noise level (dBm) =				
D.9.11.2.6.e.(8)	Signal level (dBm) =				
D.9.11.2.6.e.(9)	Variable attenuator attenuation =				
D.9.11.2.6.e.(10)	RMS noise level (dBm) =				
D.9.11.2.6.e.(11)	Signal level (dBm) =				
D.9.11.2.6.e.(12)	Variable attenuator attenuation =				
D.9.11.2.6.e.(13)			-106(dBm)		
D.9.11.2.6.e.(14)			-106(dBm)		

10KHz Sensitivity Test					
D.9.11.2.6.f.(2)	13Vp-p				
D.9.11.2.6.f.(3)	13Vp-p				
D.9.11.2.6.f.(7)	RMS noise level (dBm) =				
D.9.11.2.6.f.(8)	Signal level (dBm) =				
D.9.11.2.6.f.(9)	Variable attenuator attenuation =				
D.9.11.2.6.f.(10)	RMS noise level (dBm) =				
D.9.11.2.6.f.(11)	Signal level (dBm) =				
D.9.11.2.6.f.(12)	Variable attenuator attenuation =				
D.9.11.2.6.f.(13)			-106 (dBm)		
D.9.11.2.6.f.(14)			-106 (dBm)		

Date: _____
Tested by: _____
Inspected by: _____

STATEMENT OF WORK FOR THE
INSPECT REPAIR ONLY AS NECESSARY (IROAN)
OF THE
CONVENTIONAL MUZZLE VELOCITY SYSTEM M94
NSN: 1290-01-412-5760

APPENDIX D

FINAL ASSEMBLY AND TESTING CHECKLIST

TRANSCEIVER ASSEMBLY FUNCTIONAL TEST DATA SHEET

CONVENTIONAL TRANSCEIVER _____
SER NO. _____

Para.	Minimum Results	Actual Results	Maximum Results	Pass/Fail	Remarks
D.9.11.3.4.c.	40mA		100mA		
D.9.11.3.4.e.	500mA		900mA		
D.9.11.3.4.f.	10524MHz		10526MHz		
D.9.11.3.4.h.			2Vp-p		
	Broad band noise, No Oscillation				
D.9.11.3.4.i.			2Vp-p		
	Broad band noise, No Oscillation				
D.9.11.3.4.k.	13Vp-p				
	Saturated Signal				
D.9.11.3.4.l.	13Vp-p				
	Saturated Signal				

Date: _____
Tested by: _____
Inspected by: _____